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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/785,356	02/24/2004	Lars Karlsson	ADV7-H64	8961
7590 02/15/2006			EXAMINER	
Karl M. Steins Steins & Associates Suite 120 2333 Camino del Rio South San Diego, CA 92108			MULL, FRED H	
			ART UNIT	PAPER NUMBER
			3662	
DATE MAILED: 02/15/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/785,356	<b>Applicant(s)</b> KARLSSON ET AL.	
	<b>Examiner</b> Fred H. Mull	<b>Art Unit</b> 3662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 03 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) is/are allowed.
- 6) ☒ Claim(s) 1-14 are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments with respect to various objection(s) and the 35 USC 112 2<sup>nd</sup> rejection, have been fully considered and are persuasive. The objections and rejection have been withdrawn.

2. Applicant's arguments on p. 6-7, with respect to the rejection(s) over Liu have been fully considered but they are not persuasive.

Applicant argues Liu does not employ a cross-over point, nor use that cross-over point as a starting point to arriving at the next transmitter position estimate (p. 7, 2<sup>nd</sup> ¶, lines 5-11). However, on the first point, Liu discloses positioning using AOA (¶52; ¶64; col. 9, 1<sup>st</sup> ¶). AOA involves measuring lines of bearing and determining position based on the cross-over point of those lines of bearing. Since the receiver is moving, the measurements will be sequential. On the second point, Liu discloses using past measurements to arrive at later position estimates, where new measurements are made continuously and weighted and combined into the position estimate (p. 3, 1<sup>st</sup> col., final 17 lines (starting at "By using MDS ...")), which is similar to applicant's described invention.

3. Applicant's arguments on p. 8, with respect to the rejection(s) over Dupray have been fully considered but they are not persuasive.

Applicant argues Dupray does not employ a cross-over point, nor use that cross-over point as a starting point to arriving at the next transmitter position estimate (p. 8, 3<sup>rd</sup>

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¶). However, on the first point, Dupray discloses positioning using AOA (abstract; col. 49, lines 45-58). AOA involves measuring lines of bearing and determining position based on the cross-over point of those lines of bearing. Since the receiver is moving, the measurements will be sequential. On the second point, Liu discloses using past measurements to arrive at later position estimates (col. 7, lines 10-20).

4. Applicant's arguments on p. 7-8, with regard to Hodson are moot. Since teachings corresponding to the argued claim language are disclosed in the main references, they do not need to be disclosed in the secondary reference.

5. The terminal disclaimer filed on Feb. 3, 2006 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of application 10/765353 has been reviewed and is accepted. The terminal disclaimer has been recorded.

6. A new 35 USC 112 rejection has been added. Therefore, this action is non-final.

### ***Drawings***

7. The drawings are objected to under 37 CFR 1.83(a) because they fail to show the details of the invention of claims 10-14. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure

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number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claims 10-14 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

It is unclear how the method of claims 10-14 are carried out. There is no drawing illustrating the method, the cross-over point, the connecting vector, etc.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liu in view of Hobson.

Liu discloses:

a mobile DF set, said set comprising a receiver for receiving incident signal transmissions (30A, Fig. 3);

a line of bearing (LOB) generating system in operative communication with said receiver and configured to generate lines of bearing responsive to said received signal transmissions, determining the position of a transmitter transmitting said transmissions from said lines of bearings, and a display means for displaying said determined position (Fig. 5; p. 3, 1<sup>st</sup> column, lines 20-36; ¶64, lines 6-30).

Liu fails to disclose displaying an indication of LOB error.

Hobson discloses that "systems which give a precise determination of latitude and longitude to the operator typically fail to provide the operator with information concerning the probable degree of accuracy of the determination." (col. 2, lines 3-7). It is especially important to understand the true nature of the position measurement when the locator is emergency services seeking someone during an emergency situation, as is the case in Liu (¶10-21).

Hobson further discloses:

an LOB error generating system in operative communication with said line of bearing generating system and configured to generate error factors related to said lines of bearing (Fig. 2; col. 4, lines 31-42; col. 6, line 61 to col. 7, line 6);

an probability overlay generating system in operative communication with said LOB error generating system and configured to generate an overlay probability map responsive to said error factors (Figs. 4-7; col. 8, lines 16-31); and

display means for visually displaying said lines of bearing ( $\mu_1$ - $\mu_3$ , Figs. 4-7), said error factors and said overlay map ( $P_1$ - $P_{11}$ ).

It would have been obvious to include the probability display feature of Hobson to the emergency position displaying system of Liu in order to give emergency services personnel a more accurate picture of where the person seeking emergency services might be, as motivated by Hobson (that "systems which give a precise determination of latitude and longitude to the operator typically fail to provide the operator with information concerning the probable degree of accuracy of the determination." (col. 2, lines 3-7).)

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10. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dupray in view of Hobson.

Dupray discloses:

a mobile DF set, said set comprising a receiver for receiving incident signal transmissions (148, Fig. 4);

a line of bearing (LOB) generating system in operative communication with said receiver and configured to generate lines of bearing responsive to said received signal transmissions, determining the position of a transmitter transmitting said transmissions from said lines of bearings, and a display means for displaying said determined position (col. 20, lines 51 to col. 21, line 10).

Dupray fails to disclose displaying an indication of LOB error.

Hobson discloses that "systems which give a precise determination of latitude and longitude to the operator typically fail to provide the operator with information concerning the probable degree of accuracy of the determination." (col. 2, lines 3-7). It is especially important to understand the true nature of the position measurement when the locator is emergency services seeking someone during an emergency situation, as is the case in Liu (¶10-21).

Hobson further discloses:

an LOB error generating system in operative communication with said line of bearing generating system and configured to generate error factors related to said lines of bearing (Fig. 2; col. 4, lines 31-42; col. 6, line 61 to col. 7, line 6);



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an probability overlay generating system in operative communication with said LOB error generating system and configured to generate an overlay probability map responsive to said error factors (Figs. 4-7; col. 8, lines 16-31); and

display means for visually displaying said lines of bearing ( $\mu_1$ - $\mu_3$ , Figs. 4-7), said error factors and said overlay map ( $P_1$ - $P_{11}$ ).

It would have been obvious to include the probability display feature of Hobson to the emergency position displaying system of Dupray in order to give emergency services personnel a more accurate picture of where the person seeking emergency services might be, as motivated by Hobson (that "systems which give a precise determination of latitude and longitude to the operator typically fail to provide the operator with information concerning the probable degree of accuracy of the determination." (col. 2, lines 3-7).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred H. Mull whose telephone number is 571-272-6975. The examiner can normally be reached on 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas H. Tarcza can be reached on 571-272-6979. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Fred H Mull  
Examiner  
Art Unit 3662

fhm



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